



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/634,254	08/05/2003	Lyle V. Lehman	HES 2000-IP-001210U1	7096
29920	7590	08/09/2005	EXAMINER	
JOHN W. WUSTENBERG P.O. BOX 1431 DUNCAN, OK 73536			STEPHENSON, DANIEL P	
			ART UNIT	PAPER NUMBER
			3672	
DATE MAILED: 08/09/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/634,254

Applicant(s)

LEHMAN ET AL.

Examiner

Daniel P. Stephenson

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 24-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 27 is/are allowed.
- 6) ☒ Claim(s) 24-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/5/03</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soliman et al. '017 in view of Maki, Jr. et al. '243 and Flanders et al. Soliman et al. '017 Soliman et al. '017 discloses a system for use in a wellbore which has; a tool (200) adapted to be inserted in the wellbore, a driver (65) mounted to the tool for supplying electrical power; and a transducer (66) mounted on the outside of the tool and adapted to vibrate in response to the electrical power supplied by the driver. The vibration of the transducer removes scale from the inside of an open borehole to stimulate the formation. The transducer is a piezoelectric transducer. There is a sensor (400, 500) mounted on the tool for measuring the thickness of the scale in the wellbore. Soliman et al. '017 does not disclose that there is a screen which is being cleaned by the transducer. Nor does it disclose a microprocessor on the tool that receives the signal from the sensors on the tool and controls the driver in such a manner as to activate it when a signal is received from the sensors.

Maki, Jr. et al. '243 discloses a system for use in a wellbore which has; a tool (10) adapted to be inserted in the wellbore, a driver (18) mounted to the tool for supplying electrical power; and a transducer (28) mounted on the outside of the tool and adapted to vibrate in response to the electrical power supplied by the driver. There is a gravel pack in the wellbore

Art Unit: 3672

supported by a screening device (82). The vibration of the transducer removes scale from the screening device. The transducer is a piezoelectric transducer. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the apparatus of Soliman et al. '017 with the screen of Maki, Jr. et al. '243. This would be done because it is common knowledge in the art of screen cleaning to use an acoustic transducer to loosen scale.

Flanders et al. discloses a downhole well resonator tool in which there is a plurality of sensors (68), a microprocessor (112) and a bank of resonators (74). Upon signals from the sensors the microprocessor will determine whether or not to activate the driver (120) of the resonators. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the microprocessor and control of Flanders et al. on the device of Soliman et al. '017. This would be done to allow automatic control of the apparatus downhole. In addition, it has been held that broadly providing a mechanical or automatic means to replace manual activity (i.e. activation of the transducer using sensor readings) that has accomplished the same result involves only routine skill in the art. *In re Venner*, 120 USPQ 192.

Response to Arguments

3. Applicant's arguments filed 5/18/05 have been fully considered but they are not persuasive.

4. It is the assertion of the applicant that neither Soliman et al. nor Flanders et al. teaches "the combination of a screening device for supporting a gravel pack in the wellbore, a tool adapted to be inserted in the wellbore, a sensor mounted to the tool for sensing scale accumulation on the screening device and outputting a signal when the scale accumulation exceeds a predetermined value, a driver mounted on the tool for supplying electrical power when

Art Unit: 3672

it is activated, a microprocessor mounted on the tool and responsive to the signal for activating the driver, and a transducer mounted on the tool and adapted to vibrate in response to the supply of electrical power when the driver is activated to remove the scale from the screening device and stimulate the formation.” While the examiner agrees that these features are not shown explicitly, they are rendered obvious when the combination of Soliman et al. and Flanders et al. is used in conjunction with the Maki, Jr. et al. reference. Which demonstrates the cleaning of a screen using a transducer.

5. In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971):

6. In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, in knowledge generally available to one of ordinary skill in art of wellbore cleaning

Art Unit: 3672

one would find that a microprocessor is commonly used in conjunction with sensors for downhole activation of tools, which is what the Flanders reference is used to illustrate.

7. In response to applicant's argument that Flanders et al. is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the current invention is a downhole tool using automatic actuation. Flanders et al. is well within the art of downhole tools with this feature.

Allowable Subject Matter

8. Claim 27 is allowed.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,


Art Unit: 3672

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel P. Stephenson whose telephone number is (571) 272-7035. The examiner can normally be reached on 8:30 - 5:00 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David J. Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


David Bagnell
Supervisory Patent Examiner
Art Unit 3672

DPS 